WATER RESOURCES RESEARCH GRANT PROPOSAL

Project ID: 2004UT44B

Title: Alternative Decentralized Wastewater Treatment Systems for Utah Conditions

Project Type: Information Transfer

Focus Categories: Water Quality, Treatment, Non Point Pollution

Keywords: On-site Wastewater Treatment, Alternative Systems, Decentralized Wastewater Treatment

Start Date: 03/01/2004

End Date: 02/28/2005

Federal Funds Requested: $47,516

Non-Federal Matching Funds Requested: $87,461

Congressional District: UT1

Principal Investigator:
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Abstract

Increasing development of rural areas in Utah is resulting in demands for more options for treatment and disposal of wastewater, especially in areas not suitable for the use of the conventional septic tank – drain field system. Many of these alternative options are more complex treatment and disposal systems that require increased expertise in site evaluation, design, installation, management, operation, and maintenance. Also small communities that are facing growth pressures that impact water supply resources may be interested in decentralized wastewater treatment technologies that provide for beneficial reuse of the wastewater.

In this project, we will survey, review, and evaluate existing information on various wastewater technologies that would be protective of public health and the environment under Utah climatic, geological, and regulatory conditions, while at the same time addressing the pressures of population growth. Based on the information collected, we will develop guidance materials for state and local decision-makers on decentralized treatment technologies and appropriate management strategies for those technologies.

Specific tasks include:

1) Survey and collect existing information on alternative decentralized on-site and wastewater reuse treatment technologies.

2) Evaluate information with regards to applicability of technologies to Utah's climatic, geological, and regulatory conditions – consider life cycle costs, treatment efficiencies, management requirements, reliability and failure rates, and potential for beneficial reuse of wastewater.

3) Develop guidance materials for state and local decision-makers concerning wastewater treatment technologies and management programs that will be protective of public health and the environment.